

### **III. REMARKS**

Claims 1-22 are pending in this application. By this amendment, claims 1, 2, 16, 21 and 22 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 1, 3, 6-13 and 21-22 are rejected under 35 U.S.C. §102(b) as allegedly being unpatentable over Acrophile: An Automated Acronym Extractor and Server, pp. 209-214, by Leah S. Larkey, Paul Ogilvie, M. Andrew Price, Department of Computer Science, University of Massachusetts, Amherst, MA, Brenden Tamilio, School of Cognitive Science, Hampshire College, Amherst, MA., hereafter “Larkey.” Claims 2, 4-5 and 14-20 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Larkey in view of Malsheen (U.S. Patent No. 6,701,345), hereafter “Malsheen.”

#### **A. REJECTION OF CLAIMS 1-3, 6-7, 10-13, 15-19, 22-25 AND 28 UNDER 35 U.S.C. §102(b)**

Initially, Applicants respectfully state that they are having difficulty determining which features of Larkey the Office is equating with the abbreviation patterns and the definition patterns of the claimed invention based solely on the Office Action. Applicants respectfully request clarification regarding this matter.

Further, with regard to the 35 U.S.C. §102(b) rejection over Larkey, Applicants assert that Larkey does not teach each and every feature of the claimed invention. For example, with

respect to independent claim 1, and similarly claimed in independent claims 21 and 22, Applicants submit that Larkey fails to teach an abbreviation pattern generation process that creates one or more abbreviation patterns representing candidate abbreviations, each of the one or more abbreviation patterns being a template that indicates a number and a location of characters and numeric strings within a candidate abbreviation. In contrast, the passage of Larkey cited by the Office describes reading a set of web pages to compile a database that lists acronym and expansion occurrences. Page 207, Building and Updating the Database section. This description of Larkey appears to contain only acronyms and expansions without including separate patterns that represent candidate abbreviations. In any case, Larkey does not disclose a pattern that indicates a number and a location of characters and numeric strings within a candidate abbreviation.

In contrast, the claimed invention includes “...an abbreviation pattern generation process that creates one or more abbreviation patterns representing candidate abbreviations, each of the one or more abbreviation patterns being a template that indicates a number and a location of characters and numeric strings within a candidate abbreviation.” Claim 1. As such, unlike Larkey, which merely compiles its acronyms and their expansions for listing in a database, the generation process of the claimed invention creates one or more abbreviation patterns that represent a candidate abbreviation. Each of these one or more created abbreviation patterns is a template that indicates a number and a location of characters and numeric strings within a candidate abbreviation. Thus, the building and updating of the database of Larkey does not teach or suggest the generation of the one or more abbreviation patterns of the claimed invention. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

With further respect to independent claim 1, and similarly claimed in independent claims 21 and 22, Applicants submit that Larkey also fails to teach a definition pattern generation process that creates one or more definition patterns representing candidate definitions, each of the one or more definition patterns being a template that indicates a number and a location of numeric strings, stopwords, prefix/headword combinations and base words within a candidate definition. As with the abbreviation patterns described above, the description in Larkey contains only acronyms and expansions does not include separate patterns that represent candidate definitions, much a definition pattern that is a template that indicates a number and a location of numeric strings, stopwords, prefix/headword combinations and base words within a candidate definition.

In contrast, the claimed invention includes "...a definition pattern generation process that creates one or more definition patterns representing candidate definitions, each of the one or more definition patterns being a template that indicates a number and a location of numeric strings, stopwords, prefix/headword combinations and base words within a candidate definition."

Claim 1. As such, the definition pattern generation process of the claimed invention does not merely compile acronyms and their expansions for listing in a database as does Larkey, but rather creates one or more definition patterns that represent a candidate definition. Further, each of these definition patterns is a template that indicates a number and a location of numeric strings, stopwords, prefix/headword combinations and base words within a candidate definition. Thus, the definition pattern generation process of the claimed invention is not taught or suggested by the compiling of Larkey. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

With respect to dependent claims, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. Furthermore, Applicants submit that all dependant claims are allowable based on their own distinct features. Since the cited art does not teach each and every feature of the claimed invention, Applicants respectfully request withdrawal of this rejection.

#### **B. REJECTION OF CLAIMS 2, 4-5 AND 14-20 UNDER 35 U.S.C. §103(a)**

With regard to the 35 U.S.C. §103(a) rejection over Larkey in view of Malsheen, Applicants assert that the references cited by the Office do not teach or suggest each and every feature of the claimed invention. For example, with respect to dependent claim 2, Applicants submit that the cited references fail to teach or suggest one or more formation rules that define how each character in an abbreviation is formed from a definition. The Office admits that Larkey fails to specifically disclose this feature. Instead, the Office references a passage of Malsheen that describes a translation table that "...has the following three fields: keyword, expansion value, rule type," equating the rule type with the one or more formation rules of the claimed invention. Col. 7, line 67 through col. 8, line 1. However, a closer inspection of the rule type of Malsheen shows that it simply identifies a context in which a particular abbreviation is used (e.g., quantifier, street, and military for the abbreviation "sq.") and does not define how each character in an abbreviation is formed from a definition. See col. 8, lines 8-16. Furthermore, Malsheen does not indicate that any of the records in its table have been automatically generated based on candidate abbreviations and definition patterns that have previously been determined as matches by the system. Thus the rules of Malsheen do not teach or suggest the formation rules of the

claimed invention. Accordingly, Applicants respectfully request that the Office's rejection be withdrawn.

Furthermore, with respect to dependent claim 16, Applicants submit that the cited references also fail to teach or suggest a mechanism for automatically generating one or more new abbreviation rules when no formation rules successfully match high-quality pairs of candidate abbreviations and definitions. The Office admits that Larkey fails to specifically disclose this feature. Instead, the Office states that, based on Malsheen, adding or deleting abbreviations to or from memory is known to one of ordinary skill in the art. Office Action, page 7, first full paragraph. Even assuming, *arguendo*, this to be the case, the automatic addition of an abbreviation rule when a high-quality pair of candidate abbreviations and definitions has been determined, for which there is no formation rule, is not known in to one of ordinary skill in the art. Accordingly, Applicants respectfully request that the Office provide references that support its factual statement or withdraw the rejection.

With regard to the Office's other arguments regarding dependent claims, Applicants herein incorporate the arguments presented above with respect to independent claims listed above. In addition, Applicants submit that all dependant claims are allowable based on their own distinct features. However, for brevity, Applicants will forego addressing each of these rejections individually, but reserve the right to do so should it become necessary. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

#### IV. CONCLUSION

In addition to the above arguments, Applicants submit that each of the pending claims is patentable for one or more additional unique features. To this extent, Applicants do not acquiesce to the Office's interpretation of the claimed subject matter or the references used in rejecting the claimed subject matter. Additionally, Applicants do not acquiesce to the Office's combinations and modifications of the various references or the motives cited for such combinations and modifications. These features and the appropriateness of the Office's combinations and modifications have not been separately addressed herein for brevity. However, Applicants reserve the right to present such arguments in a later response should one be necessary.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

/Hunter E. Webb/

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